WHAT IS CLAIMED IS:

1. An access network apparatus in a high data rate mobile communication system, comprising:

a measuring part for measuring reception power of a reverse DRC (Data Rate Control) channel;

a controller for determining a slotting rate of the reverse DRC channel by comparing the measured reception power of the reverse DRC channel with a plurality of predetermined threshold values; and

a channel transmitter for transmitting a signaling message including information indicating the determined slotting rate to an access terminal.

2. The access network apparatus as claimed in claim 1, wherein the signaling message further includes information on a slot where transmitting the reverse DRC channel is started, and information on whether an offset is applied to a pilot channel.

3. The access network apparatus as claimed in claim 1, wherein the reception power of the reverse DRC channel is defined as an average signal-to-noise ratio determined by measuring a signal-to-noise ratio of each reverse DRC channel received from every user and then dividing the measured signal-to-noise ratios by a number of the users.

4. The access network apparatus as claimed in claim 1, wherein the reception power of the reverse DRC channel is defined as a least value of a plurality signal-to-noise ratios measured for reverse DRC channels received from every user.

5. The access network apparatus as claimed in claim 1, wherein the signaling message further includes MAC ID (Medium Access Control Identification).

6. The access network apparatus as claimed in claim 5, wherein the access terminal determines a slot where transmitting the reverse DRC channel is

started, and whether an offset is applied to a pilot channel, using the slotting rate and MAC ID included in the signaling message.

7. An access terminal apparatus in a high data rate mobile communication system, comprising:

a DRC channel transmitter for creating a DRC channel signal by channel-spreading DRC information indicating one of forward data rates; and

a controller for determining a slotting rate of a DRC channel by using a signaling message from an access network, and controlling a gating device such that the DRC channel is slotted at every predetermined number of slots according to the determined slotting rate; said gating device, under the control of the controller, slotting the created DRC channel signal.

8. The access terminal apparatus as claimed in claim 7, further comprising a pilot channel transmitter for creating a pilot channel signal.

9. The access terminal apparatus as claimed in claim 8, wherein the DRC channel signal from the DRC channel transmitter and the pilot channel signal from the pilot channel transmitter are subjected to time division multiplexing.

10. The access terminal apparatus as claimed in claim 8, wherein the DRC channel signal from the DRC channel transmitter and the pilot channel signal from the pilot channel transmitter are subjected to code division multiplexing.

11. The access terminal apparatus as claimed in claim 7, wherein the signaling message comprises slotting rate information and information on a slot where transmitting the DRC channel is started.

12. The access terminal apparatus as claimed in claim 7, wherein the signaling message comprises slotting rate information and MAC ID information.

13. The access terminal apparatus as claimed in claim 12, wherein the controller determines the slot where transmitting the DRC channel is started, using the slotting rate information and the MAC ID information.

14. The access terminal apparatus as claimed in claim 7, wherein the controller determines the slotting rate by inverting a repetition frequency and controlling the gating device at the determined slotting rate, during slotted transmission of the DRC channel signal into the access network.

15. An access network apparatus in a high data rate mobile communication system, comprising:

a measuring part for measuring reception power of a reverse DRC channel;

a controller for determining a repetition frequency (DRCLength) of said reverse DRC channel by comparing the measured reception power of the DRC channel with a plurality of predetermined threshold values, and adjusting transmission power of the reverse DRC channel below transmission power of a reverse pilot channel; and

a channel transmitter for transmitting a signaling message including information indicating the repetition frequency and information indicating the transmission power of the reverse DRC channel.

16. The access network apparatus as claimed in claim 14, wherein the signaling message further comprises information indicating whether the reverse DRC channel is slotted.

17. An access network apparatus as claimed in claim 14, wherein a transmission power of the DRC channel is determined by multiplying a transmission power of the pilot channel by a reciprocal of the DRC channel repetition frequency.

18. An access terminal apparatus in a high data rate mobile communication system, comprising:

a controller for determining a repetition frequency of a DRC channel and transmission power of the DRC channel by using a signaling message from an access network;

a DRC channel transmitter for repeating a DRC channel signal indicating one of forward data rates as many times as the repetition frequency, under the control of the controller; and

a gain controller, under the control of the controller, for adjusting transmission power of the DRC channel signal from the DRC channel transmitter below transmission power of a pilot channel.

19. The access terminal apparatus as claimed in claim 18, wherein the transmission power of the DRC channel is transmitted as a value obtained by multiplying a transmission power of the pilot channel by a reciprocal of the DRC channel repetition frequency.

20. A method for transmitting DRC information selected by an access terminal to an access network in a mobile communication system in which the access terminal transmits to the access network DRC information indicating a selected one of forward data rates requested by the access terminal, and the access network specifies DRC information length indicating a number of slots where the DRC information is repeated and transmits the DRC information length to the access terminal, wherein the access terminal gates transmission of the DRC information to the access network at one time slot in every DRC information length.

21. A data transmission method for an access network in a mobile communication system in which an access terminal transmits to the access network, during call setup, DRC information length indicating a frequency of repeating DRC information designating one of several requested forward data rates at a plurality of time slots, and the access network receives the designated DRC information at the determined one time slot according to the DRC information length, wherein upon receipt of the designated DRC information at the time slot, the access network transmits transmission data to the access terminal during the designated data rate at the time slots corresponding to the DRC information length(DRC_length).

22. A data transmission method for an access network in a high data rate mobile communication system, comprising the steps of:

measuring reception power of a reverse DRC channel;

determining a slotting rate of the reverse DRC channel by comparing the measured reception power of the reverse DRC channel with a plurality of predetermined threshold values; and

transmitting a signaling message including information indicating the determined slotting rate to an access terminal.

23. The data transmission method as claimed in claim 22, wherein the signaling message further includes information on a slot where transmitting the reverse DRC channel is started, and information on whether an offset is applied to a pilot channel.

24. The data transmission method as claimed in claim 22, wherein the reception power of the reverse DRC channel is defined as an average signal-to-noise ratio determined by measuring a signal-to-noise ratio of each reverse DRC channel received from every user and then dividing the measured signal-to-noise ratios by a number of the users.

25. The data transmission method as claimed in claim 22, wherein the reception power of the reverse DRC channel is defined as a least value of a plurality signal-to-noise ratios measured for reverse DRC channels received from every user.

26. A data transmission method for an access network in a high data rate mobile communication system, comprising the steps of:

measuring reception power of a reverse DRC channel;

determining a repetition frequency DRCLength of said reverse DRC channel by comparing the measured reception power of the reverse DRC channel with a plurality of predetermined threshold values ;

adjusting transmission power of the reverse DRC channel below

transmission power of a reverse pilot channel; and

transmitting a signaling message including information indicating the repetition frequency and information indicating the transmission power of the reverse DRC channel.

27. The data transmission method as claimed in claim 26, wherein the signaling message further comprises information indicating whether the reverse DRC channel is slotted.

28. The data transmission method as claimed in claim 26, wherein the transmission power of the DRC channel is transmitted as a value obtained by multiplying a transmission power of the pilot channel by a reciprocal of the DRC channel repetition frequency.

29. A data transmission method for an access terminal in a high data rate mobile communication system, comprising the steps of:

acquiring a repetition frequency of a DRC channel by using a signaling message from an access network;

adjusting transmission power of the DRC channel signal below transmission power of a pilot channel according to the acquired repetition frequency; and

repeatedly transmitting the DRC channel as many times as the repetition frequency at the determined transmission power.

30. The data transmission method as claimed in claim 29, further comprising the steps of:

determining a slotting rate by inverting the repetition frequency upon receipt of a slotted transmission order from the access network; and

slotting at least one of the repeated DRC channels according to the determined slotting rate.

31. The data transmission method as claimed in claim 29, wherein the

and a forward data rate by using the stored reverse DRC channels; and

transmitting the forward data to the determined access terminal at the determined data rate.

35. A data reception method for an access terminal in a high data rate mobile communication system, comprising the steps of:

determining a forward data rate to request by measuring reception power of a forward pilot channel;

creating DRC information corresponding to the determined forward data rate;

transmitting the created DRC information to an access network;

after transmitting the DRC information, determining whether forward data is received, for a valid DRC application interval specified by the access network; and

upon failure to receive forward data in the valid DRC application interval, stopping a reception operation until before transmitting a next DRC channel.

36. A communication method in a mobile communication system in which an access terminal transmits to an access network DRC information indicating a selected one of forward data rates requested by the access terminal, comprising the steps of:

designating a DRC information length DRCLength indicating a number of slots where the DRC information is repeated and transmitting the designated DRC information length from the access network to the access terminal; and

gating transmission of DRC information to the access terminal at one time slot in every DRC information length received from the access network.

37. A data transmission method for an access terminal in a high data rate mobile communication system, comprising the steps of:

creating a DRC channel signal by channel-spreading DRC information indicating one of a plurality of forward data rates;

transmission power of the DRC channel is transmitted as value obtained by multiplying a transmission power of the pilot channel by a reciprocal of the DRC channel repetition frequency.

32. A communication method in a high data rate mobile communication system, comprising the steps of:

during call setup, transmitting a signaling message including information indicating repetition frequency of a reverse DRC channel and information indicating whether an offset is applied to a pilot channel, from an access network to an access terminal;

repeatedly transmitting the reverse DRC channel requesting one of several forward data rates from the access terminal to the access network as many times as the repetition frequency, if the access terminal determines that a slotted transmission mode is disabled, by using the signaling message;

determining a slotting rate by inverting the repetition frequency, if the access terminal determines that the slotted transmission mode is enabled or upon receipt of a slotted transmission order message from the access network; and

slotting the reverse DRC channel at a predetermined number of slots according to the determined slotting rate.

33. The communication method as claimed in claim 32, wherein when the DRC channel is repeatedly transmitted, transmission power of the DRC channel is adjusted below transmission power of a pilot channel.

34. A data transmission method for an access network in an a high data rate mobile communication system, comprising the steps of:

determining a time interval required for determining a forward data rate and reporting the determined time interval to an access terminal;

storing reverse DRC channels received in the time interval;

determining an access terminal to which forward data is to be transmitted

determining a slotting rate of the DRC channel by using a signaling message from an access network; and

slotting and transmitting the DRC channel at every slot according to the determined slotting rate.

38. A method for determining a access network mode in a mobile communication system in which a continuous mode which continuously transmits data rate control information indicating one of a plurality of forward data transmission rates at every slot and a gated mode which is gated and transmitted to one of a predetermined slot are supported, comprising:

switching from the continuous mode to the slotted mode if a receipt strength of a reverse data rate control channel is lower than a first reference value;

switching from the slotted mode to the continuous mode if the receipt strength of the reverse data rate control channel is higher than a second reference value; and

transmitting a signaling message including information designating the switched slotted or continuous mode to the access terminal.

39. A method for determining an access network mode as claimed in claim 38, wherein the first reference value differs from the second reference value.

40. A method for determining an access network mode as claimed in claim 38, further comprising determining a slotted rate of the DRC channel by the access network comparing the receipt strength of the reverse DRC channel with a predetermined reference values lower than the first reference value and determined in the slotted mode; and transmitting signaling message including information designating the determined slotted rate to the access terminal.

41. A method for determining a forward data rate of an access network in a mobile communication system in which users are grouped into a plurality of user groups, each user group transmits a DRC information at a time slot in slot period

having a predetermined length and the access network receives the DRC information, wherein the access network gathers the most recently received DRC information as to each user group and determines the forward data rate in a certain time in the slot period.

42. A method for transmitting a receipt strength(C/I) information selected by an access terminal to an access network in a mobile communication system in which the access terminal measures a receipt strength of a forward pilot signal of the access network and transmits the receipt strength of the forward pilot signal to the access network, and the access network specifies C/I information length indicating a number of slots where the C/I information is repeated and transmits the C/I information length to the access terminal, wherein the access terminal gates transmission of the DRC information to the access network at one time slot in every DRC information length.